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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/591,239	06/09/2000	Yoshihiro Hirano	P/2007-63	3197

7590

03/13/2002

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EXAMINER

SHOSHO, CALLIE E

ART UNIT

PAPER NUMBER

1714

7

DATE MAILED: 03/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/591,239

Applicant(s)

HIRANO ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 12/21/01.

It is noted that applicants state in the amendment that claims 1-5 have been cancelled. However, while applicants instruct the office to amend claims 6, 7, 9, and 11, there are no instructions to cancel claims 1-5 and thus, the claims remain pending. If applicant does cancel claims 1-5, the rejections as set forth in paragraphs 3-4 and 6 below will obviously be withdrawn.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Iwata et al. (U.S. 5,736,218).

The rejection is adequately set forth in paragraph 4 of the office action mailed 6/22/01, Paper No. 4, and is incorporated here by reference.

4. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki et al. (U.S. 6,129,871).

The rejection is adequately set forth in paragraph 5 of the office action mailed 6/22/01, Paper No. 4, and is incorporated here by reference.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 06198610 in view of WO 95/05275.

The rejection is adequately set forth in paragraph 8 of the office action mailed 6/22/01, Paper No. 4, and is incorporated here by reference.

7. Claims 6-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 61066604 in view of WO 95/05275.

The rejection is adequately set forth in paragraph 9 of the office action mailed 6/22/01, Paper No. 4, and is incorporated here by reference.

Response to Arguments

8. Applicants' arguments filed 12/21/01 have been fully considered but they are not persuasive.

Specifically, applicants argue that JP 61066604 measure the degree of acetylation of the wood chips based on the total OH groups in the chips and do not teach or suggest controlling acetylation based on a change in weight as presently claimed. Applicants further argue that the percentage of acetylated OH groups is not equivalent to the percentage of weight gain.

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It is agreed that JP 61066604, an English translation of which is include in this office action, disclose the degree of acetylation in terms of the percentage of acetylated OH groups and it is further agreed that the percentage of acetylated OH groups is not equivalent to the percentage of weight gain. However, given that JP 61066604 disclose forming the acetylated first wood element by a process identical to that presently claimed, i.e. acetylating by placing the wood elements in liquid which contains acetyl groups and further given that JP 61066604 disclose the same acetylating agent as utilized in the present invention, i.e. acetic anhydride, it is clear, absent evidence to the contrary, that the wood elements of JP 61066604 would intrinsically be acetylated to the same degree, as measured in weight percentage gain, as the presently claimed wood elements.

Further, the present claims require weight percent gain of 7% or greater. JP 61066604 discloses that the wood elements are acetylated to a theoretical amount of approximately 15-20% of all hydroxyl groups (page 6). Thus, given that JP 61066604 acetylates the wood elements to the theoretical or maximum amount possible, it is clear that the degree of acetylation in JP 61066604 would encompass the maximum values of degree of acetylation in terms of weight percentage gain as presently claimed, i.e. "or greater". That is, acetylating the OH groups to the maximum amount possible would clearly correspond to a weight percent gain which is the maximum possible and which would encompass the amount set forth in the present claims, i.e. 7% or greater.

Note: Should applicant argue that JP 61066604 does not disclose the degree of acetylation in terms of weight percent gain as presently claimed, the burden now shifts back to the applicant to provide evidence of this position.

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Additionally, it is noted that while JP 61066604 disclose the maximum or theoretical amount of acetylated OH groups possible, the reference is clearly not limited to this degree of acetylation only. The treatment as set forth in JP 61066604 clearly allows one of ordinary skill in the art to form wood elements with various degrees of acetylation including those lower than the maximum values described above.

Thus, absent evidence of criticality regarding the presently claimed degree of acetylation, it is the examiner's position given that JP 61066604 disclose acetylation of the wood elements using process and acetylating agent identical to that presently claimed, the first wood element of JP 61066604 clearly encompasses, in addition to the maximum values described above, other values of degree of acetylation as presently claimed, i.e. 7%, 10%, 20%, etc.

In light of the above, JP 61066604 remains a relevant reference against the present claims.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Callie Shosho
March 6, 2002



VASU JAGANNATHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700